PROGRESS REPORT FOR PERIOD ENDING DEC. 31, 2000
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The Accelerated Climate Prediction Initiative (ACPI)

CAUTION/DISCLAIMER

The results given on this web site announce a new capability that will need to be exercised and refined many times before such results can be considered quantitatively reliable guides for policy makers and other potential users of this information. They represent ongoing, unpublished research that has not been vetted in formal scientific review and, therefore, should not be used as a guide to the future or referenced in any way. In the meantime, the results do raise a number of important issues and questions. It is important for policy makers and other users to know that such questions are being asked and now can be answered, albeit with unknown accuracy. Moreover, since we are dealing with long-term climate change, we expect the capability to do this kind of projection will improve significantly by the time it is necessary to use it. So the reader is advised that the results discussed, particularly in Element 3, are highly preliminary. We cannot, at this time, estimate their reliability and/or uncertainty. They are not for public or private use or dissemination to others.

The ACPI Pilot comprises three elements. Within each element are several avenues of study headed by one or more Principal Investigators. The progress report is organized according to these elements and avenues of study. Additional information can be found on the SIO ACPI web site http://goldhill.cgd.ucar.edu/pcm/ under ACPI Pilot Project, on the NCAR web site.

ELEMENT 1 – Ocean Initial Conditions

Ocean Simulation (Tokmakian and Semtner)

Ocean State Estimation (Stammer, NPS)

Initial Conditions for Scenario Runs (Pierce and Barnett, SIO)

Model Incompatibility (Maltrude and Lysne, LANL)

ELEMENT 2 –Modeling Anthropogenic Climate Change

Parallel Climate Model (Washington, NCAR)

See http://www.cgd.ucar.edu/pcm/ACPI/

ELEMENT 3 – Downscaling/Inputs

Dynamical Downscaling (Leung and Pennell, PNNL
See http://www.pnl.gov/atmos_sciences/Lrl/pnnl.html

Numerical Downscaling (Roads and Han, SIO)
See http://ecpc.ucsd.edu/projects/acpi/200102_ACPI_Quarterly_Report_I.htm
See also the comparison web page of dynamically downscaled climate with various re-analyses products and observational data at
http://ecpc.ucsd.edu/projects/acpi/acpiwebs.html

Statistical Downscaling (Mason, SIO)
See http://meteora.ucsd.edu/~simon/acpi.html

Investigation of Climate Change Impacts on Water Resources and Fire Weather in the California region (D. Cayan and A. Westerling SIO; M. Dettinger and R. Hanson, USGS; T. Brown, DRI)

See http://meteora.ucsd.edu/~meyer/acpi_calif.html

Investigation of Climate Change Impacts on Water Resources in the Columbia River and Sacramento-San Joaquin (Lettenmeier and Palmer, UW)
See http://maximus.ce.washington.edu/~aww/acpi/acpi.htm and
http://maximus.ce.washington.edu/~palmer/ACPI/Professional1.htm

Investigation of Climate Change Impacts on Fish Habitats in the Yakima River and American River (Wigmosta and Vail, PNNL)
See http://inrm.labworks.org/acpi/index.htm